

B. REMARKS

New Claim 20 has been added in this reply. Hence, Claims 1, 2, 4-9 and 12-20 are pending in this application. The new claim and the amendments to the claims do not add any new matter to this application. All issues raised in the Office Action mailed December 11, 2009 are addressed hereinafter. Reconsideration is requested in view of the amendments and remarks provided herein.

REJECTION OF CLAIMS 1-2 AND 7-9 UNDER 35 U.S.C. § 103(a)

Claims 1-2 and 7-9 are rejected under 35 U.S.C. § 103(a) as being unpatentable over *Perkins*, U.S. Patent Publication No. 2003/0184782 (hereinafter “*Perkins*”) in view of *Shin*, U.S. Patent No. 6,351,320 (hereinafter “*Shin*”). It is respectfully submitted that Claims 1-2 and 7-9, as amended, are patentable over *Perkins* and *Shin*, considered alone or in combination, for at least the reasons provided hereinafter.

CLAIM 1

Claim 1, as amended, is directed to an apparatus and recites:

“a non-volatile storage device;
an application program; and
a printer driver configured to

retrieve configuration data from a printing device, wherein the configuration data includes command data and program logic data,
cause the configuration data to be stored on the non-volatile storage device,
use the command data included in the configuration data to translate a first command generated by the application program into a second command supported by the printing device;
use the program logic data to generate one or more graphical user interface objects that are displayed on a graphical user interface in association with the printing of an electronic document to the printing device, wherein the one or more graphical user interface objects correspond to installed options and option attributes on the printing device and reflect dependencies between the installed options and option attributes, and wherein the program logic data indicates dependencies between the installed options and option attributes on the printing device.”

The apparatus recited in Claim 1 includes a printer driver that is configured to retrieve configuration data from a printing device. The configuration data includes command data and

program logic data. The printer driver uses the command data to translate commands generated by an application program into commands supported by the printing device. The printer driver uses the program logic data to generate graphical user interface objects that are displayed on a graphical user interface in association with the printing of an electronic document to the printing device. The one or more graphical user interface objects correspond to installed options and option attributes on the printing device and reflect dependencies between the installed options and option attributes. The program logic data indicates the dependencies between the installed options and option attributes on the printing device. The printer driver uses the program logic data to generate and display the user interface objects in a manner that correctly reflects the installed options and option attributes on the printing device, as well as the dependencies between the installed options and option attributes.

It is respectfully submitted that Claim 1 recites one or more limitations that are not taught or suggested by *Perkins* and *Shin*, considered alone or in combination. For example, it is respectfully submitted that at least the Claim 1 limitations “the printer driver configured to retrieve configuration data from a printing device, wherein the configuration data includes command data and program logic data” and “use the program logic data to generate one or more graphical user interface objects that are displayed on a graphical user interface in association with the printing of an electronic document to the printing device, wherein the one or more graphical user interface objects correspond to installed options and option attributes on the printing device and reflect dependencies between the installed options and option attributes, and wherein the program logic data indicates dependencies between the installed options and option attributes on the printing device” are not taught or suggested by *Perkins* or *Shin*.

Perkins describes a generic printer driver that is capable of receiving printer self-description data from a printer and using the self-description data to present printer-specific printing options to a user and to format a print job using printer-specific commands and information. There is no teaching or suggestion that the self-description data retrieved from a printer includes program logic data that “indicates dependencies between the installed options and option attributes on the printing device” and is used by the printer driver to “generate one or more graphical user interface objects that are displayed on a graphical user interface in association with the printing of an electronic document to the printing device, wherein the one or more graphical user interface objects correspond to installed options and option attributes on the

printing device and reflect dependencies between the installed options and option attributes.” In *Perkins*, the user interface generated by the printer driver allows a user to select a target printer, e.g., as in FIG. 4, and to select particular print options, e.g., as in FIG. 5. There is no indication, however, that the user interface “indicates dependencies between the installed options and option attributes on the printing device” as recited in Claim 1. The examples described and depicted in *Perkins* include just a simple selection of options, without any indicated dependencies between options and option values. It is therefore respectfully submitted that the aforementioned limitations recited in Claim 1 are not taught or suggested by *Perkins*.

Shin describes a memory-saving printer driver that is capable of controlling output image aspects and quality. The printer driver reduces the amount of color correction tables required to generate quality images and therefore the amount of memory required to store the color correction table. The printer driver is capable of generating a graphical user interface for selecting output image aspects. There is no indication that the printer driver retrieves from a printer includes program logic data that “indicates dependencies between the installed options and option attributes on the printing device” and is used by the printer driver to “generate one or more graphical user interface objects that are displayed on a graphical user interface in association with the printing of an electronic document to the printing device, wherein the one or more graphical user interface objects correspond to installed options and option attributes on the printing device and reflect dependencies between the installed options and option attributes,” as recited in Claim 1. In *Shin*, the printer driver user interface capability is integral to the printer driver and is provided when the printer driver is installed.

In view of the foregoing, it is respectfully submitted that Claim 1 recites one or more limitations that are not taught or suggested by *Perkins* and *Shin*, considered alone or in combination, and that Claim 1 is patentable over *Perkins* and *Shin*.

CLAIMS 2 AND 7-9

Claims 2 and 7-9 all depend from Claim 1 and include all of the limitations of Claim 1. It is therefore respectfully submitted that Claims 2 and 7-9 are patentable over *Perkins* and *Shin* for at least the reasons set forth herein with respect to Claim 1. Furthermore, it is respectfully submitted that Claims 2 and 7-9 recite additional limitations that independently render them patentable over *Perkins* and *Shin*.

In view of the foregoing, it is respectfully submitted that Claims 1-2 and 7-9 are patentable over *Perkins* and *Shin*. Accordingly, reconsideration and withdrawal of the rejection of Claims 1-2 and 7-9 under 35 U.S.C. § 103(a) as being unpatentable over *Perkins* in view of *Shin* is respectfully requested.

REJECTION OF CLAIMS 4-6 UNDER 35 U.S.C. § 103(a)

Claims 4-6 are rejected under 35 U.S.C. § 103(a) as being unpatentable over *Perkins* in view of *Shin* and further in view of *Hanson*, U.S. Patent No. 6,148,346 (hereinafter "*Hanson*"). It is respectfully submitted that Claims 4-6 are patentable over *Perkins*, *Shin* and *Hanson*, considered alone or in combination, for at least the reasons provided hereinafter.

Claims 4-6 depend from Claim 1 and include all of the limitations of Claim 1. As previously described herein, Claim 1 recites one or more limitations pertaining to the use by the printer driver of program logic data retrieved from a printing device that indicates dependencies between the installed options and option attributes on the printing device that are not taught or suggested by *Perkins* or *Shin*. It is also respectfully submitted that these limitations are not taught or suggested by *Hanson* and it is understood that *Hanson* is relied upon for teaching the additional limitations recited in Claim 4-6 and not the limitations recited in Claim 1. It is therefore respectfully submitted that Claims 4-6 recite one or more limitations that are not taught or suggested by *Perkins*, *Shin* and *Hanson*, considered alone or in combination, and that Claim 1 is therefore patentable over *Perkins*, *Shin* and *Hanson*. Accordingly, reconsideration and withdrawal of the rejection of Claims 4-6 under 35 U.S.C. § 103(a) as being unpatentable over *Perkins* in view of *Shin* and further in view of *Hanson* is respectfully requested.

REJECTION OF CLAIMS 12 AND 13 UNDER 35 U.S.C. § 103(a)

Claims 12 and 13 are rejected under 35 U.S.C. § 103(a) as being unpatentable over *Perkins*, in view of *Shin* and further in view of *Taylor*, U.S. Patent Publication No. 2004/0227973 (hereinafter "*Taylor*"). It is respectfully submitted that Claims 12 and 13 are patentable over *Perkins*, *Shin* and *Taylor*, considered alone or in combination, for at least the reasons provided hereinafter.

Claims 12 and 13 depend from Claim 1 and include all of the limitations of Claim 1. As previously described herein, Claim 1 recites one or more limitations pertaining to the use by the

printer driver of program logic data retrieved from a printing device that indicates dependencies between the installed options and option attributes on the printing device that are not taught or suggested by *Perkins* or *Shin*. It is also respectfully submitted that these limitations are not taught or suggested by *Taylor* and it is understood that *Taylor* is relied upon for teaching the additional limitations recited in Claim 12 and 13 and not the limitations recited in Claim 1. It is therefore respectfully submitted that Claims 12 and 13 recite one or more limitations that are not taught or suggested by *Perkins*, *Shin* and *Taylor*, considered alone or in combination, and that Claim 1 is therefore patentable over *Perkins*, *Shin* and *Taylor*. Accordingly, reconsideration and withdrawal of the rejection of Claims 12 and 13 under 35 U.S.C. § 103(a) as being unpatentable over *Perkins* in view of *Shin* and further in view of *Taylor* is respectfully requested.

REJECTION OF CLAIM 14 UNDER 35 U.S.C. § 103(a)

Claim 14 is rejected under 35 U.S.C. § 103(a) as being unpatentable over *Perkins*, in view of *Shin* and further in view of *Vidyanand*, U.S. Patent No. 6,967,728 (hereinafter “*Vidyanand*”). It is respectfully submitted that Claim 14 is patentable over *Perkins*, *Shin* and *Vidyanand*, considered alone or in combination, for at least the reasons provided hereinafter.

Claim 14 depends from Claim 1 and includes all of the limitations of Claim 1. As previously described herein, Claim 1 recites one or more limitations pertaining to the use by the printer driver of program logic data retrieved from a printing device that indicates dependencies between the installed options and option attributes on the printing device that are not taught or suggested by *Perkins* or *Shin*. It is also respectfully submitted that these limitations are not taught or suggested by *Vidyanand* and it is understood that *Vidyanand* is relied upon for teaching the additional limitations recited in Claim 14 and not the limitations recited in Claim 1. It is therefore respectfully submitted that Claim 14 recites one or more limitations that are not taught or suggested by *Perkins*, *Shin* and *Vidyanand*, considered alone or in combination, and that Claim 14 is therefore patentable over *Perkins*, *Shin* and *Vidyanand*. Accordingly, reconsideration and withdrawal of the rejection of Claim 14 under 35 U.S.C. § 103(a) as being unpatentable over *Perkins* in view of *Shin* and further in view of *Vidyanand* is respectfully requested.

REJECTION OF CLAIMS 15-17 UNDER 35 U.S.C. § 103(a)

Claims 15-17 are rejected under 35 U.S.C. § 103(a) as being unpatentable over *Perkins*, in view of *Hanson*. It is respectfully submitted that Claims 15-17, as amended, are patentable over *Perkins* and *Hanson*, considered alone or in combination, for at least the reasons provided hereinafter.

CLAIM 15

Claim 15, as amended, is directed to an apparatus and recites:

“a non-volatile storage device;
a printer driver configured to
 retrieve bitmap data from a printing device, wherein the bitmap data reflects the
 printing device, and
 cause the bitmap data to be stored on the non-volatile storage device; and
an application program to cause the bitmap data to be displayed on a graphical user
 interface to provide a visual depiction of the printing device.”

The apparatus recited in Claim 15 includes a printer driver that is configured to retrieve bitmap data from a printing device. The bitmap data “reflects the printing device.” The printer driver causes the bitmap data to be stored on the non-volatile storage device. An application program causes the bitmap data “to be displayed on a graphical user interface to provide a visual depiction of the printing device.” Thus, the printer driver is configured to retrieve bitmap data from a printing device so that an application program can display the bitmap data and provide a visual indication to users of the printing device. This enables users to identify a particular printing device based upon the visual depiction of the printing device on the graphical user interface, rather than, for example, just a name, which greatly improves the user experience.

As set forth in the Office Action, *Perkins* does not teach or suggest a printer driver that is capable of retrieving bitmap data from a printer and Applicant fully agrees with this assertion. The Office Action relies upon *Hanson* for teaching these limitations. *Hanson* describes a dynamic printer driver that provides for two-way communications between an operating system component of a host computer and an operating system component of a peripheral device. It is respectfully submitted that there is no indication in *Hanson* that the device driver is able to retrieve bitmap data from a printing device “wherein the bitmap data reflects the printing device” so that an application program can “cause the bitmap data to be displayed on a graphical user

interface to provide a visual depiction of the printing device.” It is therefore respectfully submitted that Claim 15 recites one or more limitations that are not taught or suggested by *Perkins and Hanson*, considered alone or in combination, and that Claim 15 is therefore patentable over *Perkins and Hanson*.

Claims 16 and 17 depend from Claim 15 and include all of the limitations of Claim 15. It is therefore respectfully submitted that Claims 16 and 17 are patentable over *Perkins and Hanson* for at least the reasons set forth herein with respect to Claim 15.

In view of the foregoing, it is respectfully submitted that Claims 15-17 are patentable over *Perkins and Hanson*. Accordingly, reconsideration and withdrawal of the rejection of Claims 15-17 under 35 U.S.C. § 103(a) as being unpatentable over *Perkins* in view of *Hanson* is respectfully requested.

REJECTION OF CLAIM 18 UNDER 35 U.S.C. § 103(a)

Claim 18 is rejected under 35 U.S.C. § 103(a) as being unpatentable over *Perkins*, in view of *Hanson* and further in view of *Wilson*, GB Patent No. 2,347,766 (hereinafter “*Wilson*”). It is respectfully submitted that Claim 18 is patentable over *Perkins, Hanson* and *Wilson*, considered alone or in combination, for at least the reasons provided hereinafter.

Claim 18 depends from Claim 15 and includes all of the limitations of Claim 15. As previously described herein, Claim 15 recites one or more limitations pertaining to the printer driver retrieving bitmap data from a printing device “wherein the bitmap data reflects the printing device” so that an application program can “cause the bitmap data to be displayed on a graphical user interface to provide a visual depiction of the printing device” that are not taught or suggested by *Perkins* or *Hanson*. It is also respectfully submitted that these limitations are not taught or suggested by *Wilson* and it is understood that *Wilson* is relied upon for teaching the additional limitations recited in Claim 18 and not the limitations recited in Claim 15. It is therefore respectfully submitted that Claim 18 recites one or more limitations that are not taught or suggested by *Perkins, Hanson* and *Wilson*, considered alone or in combination, and that Claim 18 is therefore patentable over *Perkins, Hanson* and *Wilson*. Accordingly, reconsideration and withdrawal of the rejection of Claim 18 under 35 U.S.C. § 103(a) as being unpatentable over *Perkins* in view of *Hanson* and further in view of *Wilson* is respectfully requested.

REJECTION OF CLAIM 19 UNDER 35 U.S.C. § 103(a)

Claim 19 is rejected under 35 U.S.C. § 103(a) as being unpatentable over *Perkins*, in view of *Hanson* and further in view of *Vidyanand*. It is respectfully submitted that Claim 19 is patentable over *Perkins*, *Hanson* and *Vidyanand*, considered alone or in combination, for at least the reasons provided hereinafter.

Claim 19 depends from Claim 15 and includes all of the limitations of Claim 15. As previously described herein, Claim 15 recites one or more limitations pertaining to the printer driver retrieving bitmap data from a printing device “wherein the bitmap data reflects the printing device” so that an application program can “cause the bitmap data to be displayed on a graphical user interface to provide a visual depiction of the printing device” that are not taught or suggested by *Perkins* or *Hanson*. It is also respectfully submitted that these limitations are not taught or suggested by *Vidyanand* and it is understood that *Vidyanand* is relied upon for teaching the additional limitations recited in Claim 19 and not the limitations recited in Claim 15. It is therefore respectfully submitted that Claim 19 recites one or more limitations that are not taught or suggested by *Perkins*, *Hanson* and *Vidyanand*, considered alone or in combination, and that Claim 19 is therefore patentable over *Perkins*, *Hanson* and *Vidyanand*. Accordingly, reconsideration and withdrawal of the rejection of Claim 19 under 35 U.S.C. § 103(a) as being unpatentable over *Perkins* in view of *Hanson* and further in view of *Vidyanand* is respectfully requested.

NEW CLAIM 20

New Claim 20 depends from Claim 15 and includes all of the limitations of Claim 15. It is therefore respectfully submitted that new Claim 20 is patentable over the references cited and relied upon for at least the reasons set forth herein with respect to Claim 15. Furthermore, it is respectfully submitted that new Claim 20 recites additional limitations that independently render it patentable over the references. For example, Claim 20 recites that “the bitmap data reflects the printing device and one or more options or media types currently supported by the printing device,” and “the application program causing the bitmap data to be displayed on the graphical user interface provides a visual depiction of the printing device and the one or more options or media types currently supported by the printing device.” This further enhances the user experience by providing a visual indication to users of the printing device and one or more options or media types currently supported by the printing device. This helps users to choose a

particular printing device because they can determine, based upon the visual depiction, whether a particular printing device currently supports an option or media type that the user is interested in using.

CONCLUSION

It is respectfully submitted that all of the pending claims are in condition for allowance and the issuance of a notice of allowance is respectfully requested. If any applicable fee is missing or insufficient, throughout the pendency of this application, the Commissioner is hereby authorized to charge any applicable fees and to credit any overpayments to our Deposit Account No. 50-1302.

The Examiner is invited to contact the undersigned by telephone if the Examiner believes that such contact would be helpful in furthering the prosecution of this application.

Respectfully submitted,

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